

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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	In re application of: Ned A. Kaled	Group Art Unit: 3627
10	Serial No.: 10/716,926	Examiner: Rafai, Ramsey
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For: INVENTORY REPLENISHMENT NOTIFICATION SYSTEM

Docket No.: H0005531

15 Customer No.: 000128

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**APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37**

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## I. INTRODUCTION

This is an Appeal Brief under 37 C.F.R. § 41.37 appealing the rejections set forth in the Final Office Action dated April 11, 2008. Each of the topics required by 37 C.F.R. § 41.37 is presented in this Brief and is labeled appropriately.

## II. REAL PARTY IN INTEREST

Honeywell International, Inc. ("Honeywell") is the real party in interest of the present application. An assignment of all rights in the present application to Honeywell was executed by the inventors and recorded by the U.S. Patent and Trademark Office at

5 **Reel 014728, Frame 0811.**

### III. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the present application of which Appellant is aware.

#### IV. STATUS OF CLAIMS

Claims 1, 3-20 are pending in this application, with Claims 1, 10 and 17 being the independent claims. Claim 2 has been cancelled.

## V. STATUS OF AMENDMENTS

All amendments have been entered, including an after-final amendment to claims 1 and 10.

## VI. SUMMARY OF CLAIMED SUBJECT MATTER

The embodiment encompassed by independent claim 1 relates to an inventory replenishment notification system. The notification system includes a plurality of bin  
5 monitors, where each of the plurality of bin monitors corresponds to one of a plurality of inventory storage devices. (See page 3, lines 10-12) The plurality of inventory storage devices each includes a primary bin coupled to a reserve bin. (See page 3, line 20 to page 4, line 5). Each of the plurality of bin monitors includes a sensor and a transmitter, the sensor configured to monitor for when a reserve bin is accessed to replenish a primary  
10 bin, and the transmitter configured to send bin replenishment information to an inventory control system. (See page 4, line 20, to page 5, line 2)

The embodiment encompassed by independent claim 10 relates to a method of updating an inventory control system that includes a plurality of storage devices, where  
15 each of the storage devices includes a primary bin coupled to a corresponding reserve bin. (See page 3, line 20 to page 4, line 5). The method includes the steps of monitoring each of the plurality of inventory storage devices to determine when one of the reserve bins has been accessed to replenish its corresponding bin, and transmitting bin replenishment information to the inventory control system when the reserve bin has been  
20 accessed to replenish the corresponding primary bin. (See page 4, line 20, to page 5, line 2)

The embodiment encompassed by independent claim 17 relates to an inventory replenishment notification system. The notification system includes a plurality of battery-powered bin monitors, where each of the plurality of bin monitors corresponds to  
25 one of a plurality of inventory storage devices. (See page 3, lines 10-12, column 6, lines 17-23) The plurality of inventory storage devices each includes a primary bin coupled to a reserve bin. (See page 3, line 20 to page 4, line 5). Each of the plurality of bin monitors is configured to monitor for when its corresponding reserve bin is accessed to replenish the primary bin and generate replenishment information indicating the

replenishment. Each transmitter is configured to send its corresponding replenishment information to an inventory control system. (See page 4, line 20, to page 5, line 2)

VII. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed in this appeal are as follows:

1. Claims 1, 3-16 were rejected under 35 U.S.C. § 103 as allegedly being  
5 unpatentable over Salvo et al (U.S. Patent No. 6,341,271, hereinafter Salvo).

2. Claims 17-20 were rejected under 35 U.S.C. § 103 as allegedly being  
unpatentable over Salvo et al (U.S. Patent No. 6,341,271, hereinafter Salvo).

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## VIII. ARGUMENTS

- I. Claims 1, and 3-16 are not unpatentable under 35 U.S.C. § 103 as over Salvo.

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A. Rejections under 35 USC §103

In the final office action, claims 1, and 3-20 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Salvo et al (U.S. Patent No. 6,341,271, hereinafter Salvo). In this rejection, the Examiner stated that Salvo teaches an inventory  
10 replenishment system that comprises a plurality of bin monitors, where each of the plurality of bin monitors includes a sensor and a transmitter. In making this rejection, the Examiner admitted that Salvo does not teach monitoring for when a reserve bin is accessed to replenish a primary bin, but stated that it would have been obvious to one of ordinary skill in the art to so modify Salvo. In response to appellant's previous arguments  
15 the Examiner argued that as Salvo teaches other methods to determine the amount of inventory, that it would have been obvious to one of ordinary skill in the art to modify Salvo to include a reserve receptacle in communication with each receptacle because doing so would allow for immediate replenishment of the inventory when the inventory in the receptacle has depleted. Furthermore, the Examiner argued that the claimed  
20 invention would have been obvious under KSR, which is alleged to foreclose an argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness.

Finally, in response to appellant's previous argument that Salvo teaches monitoring an amount, which is just an indication of quantity, the Examiner again argued  
25 that this is an obvious modification of providing signals indicative of an inventory amount, as both features are used to indicate inventory levels and a need for replenishment of inventory. The Examiner argued that their functionalities are similar, and that the modification would also have thus been obvious to one of ordinary skill in the art because doing so would provide notification that the inventory in the receptacle  
30 has depleted. And again, the Examiner argued that the claimed invention would have

been obvious under KSR, stating that KSR forecloses an argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness.

B. Analysis

5           The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988). In particular, the Examiner has the burden of articulating a factual basis for combining the cited references. Indeed, as the Supreme Court recently reiterated, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the  
10       elements in the way the claimed new invention does.” KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007). Furthermore, a claim cannot be found *prima facie* obvious unless all of the claim elements are either taught or suggested in the cited art or form part of the knowledge of one of ordinary skill in the art, or all of claim elements are obvious from the nature of the problem itself. In re Dembiczak, 175 F.3d 994, 999 (Fed.  
15       Cir. 1999) (emphasis added); In re Wilson, 424 F.2d 1382, 1385 (C.C.P.A. 1970) (“All words in a claim must be considered in judging the patentability of that claim against the prior art.”).

          Appellants submit that when analyzed according to these standards, the claims are patentably distinct over the cited references. Appellants submit that the cited reference  
20       fails to teach 1) the use of inventory storage devices that include a “primary bin coupled to a reserve bin” and 2) “monitoring for when a reserve bin is accessed to replenish a primary bin” as recited in independent claim 1 and similarly recited in independent claims 10.

          Regarding the issue of a reserve bin coupled to a primary bin, appellants note  
25       that while Salvo describes a variety of different types of receptacles (see column 4, lines 12-22) nowhere are any of these various types of receptacles described as being a “reserve” receptacle that is coupled a “primary” receptacle. Furthermore, there is no description in Salvo of multiple bins storing same type of items, such that one could serve as a reserve for the other. Instead, all the descriptions imply that each receptacle operates  
30       independently of any other receptacles, and that inventory amounts are likewise

independent.

Furthermore, Salvo itself teaches against such an arrangement, stating that “the shape and material of each receptacle may differ and do not effect the operation of the inventory management system 100”. See column 4, 15-18 of Salvo. Thus, Salvo admits  
5 that no special configuration of receptacles is required, and clearly does not contemplate any sort reserve/primary bin configuration.

Thus, Salvo clearly did not complete the use of their system with inventory receptacles that includes a “reserve bin coupled to a primary bin”, and in fact teaches against the need for such a particular arrangement.

10 Regarding the limitation of “monitoring for when a reserve bin is accessed to replenish a primary bin”, appellants again submit that this limitation is not found in the cited reference. Again, Salvo teaches the use of sensors that provide signals of **amount**, not an indication of **transfer** from a reserve bin to a primary bin. Appellants note that Salvo describes these sensors with examples such as level sensors, weight indicators, and  
15 other devices that permit “determination of the amount 151 of the inventory in a receptacle 104”. See column 4, line 32-46. All of these things are detections of quantity, not indications of transfer.

Appellants submit that it is fundamentally different to attempt to quantify an amount of some item rather than to simply monitor when a reserve bin has been accessed.  
20 Methods of monitoring for quantity can require a great level of complexity depending upon the item being monitored, and are thus subject to a variety of possible failure modes. In contrast, monitoring for a transfer can relatively simple, and can be reliably determined with high precision. Thus, while the purpose of monitoring for transfer may be similar to that of determining a quantity, the techniques are clearly fundamentally  
25 different. Thus, Salvo clearly does not teach the claimed invention as it fails to teach any sort of “monitoring for when a reserve bin is accessed to replenish a primary bin”.

As was noted above, in making these rejections the Examiner also argued (apparently as a fallback position) that the claimed invention would have been obvious under KSR, which is alleged to foreclose an argument that a specific teaching, suggestion  
30 or motivation is required to support a finding of obviousness. To support this conclusion,

the Examiner cites the recent Board decision, *Ex parte Smith*, --USPQ2d, slip opinion at 20, (Bd. Pat. App. & Interf. June 25, 2007).

Appellants submit this is a misapplication of KSR. Specifically, while a specification teaching, suggestion or motivation may not be required under KSR, there must still be some underlying rationale to support the finding of obviousness. KSR itself states that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”. *KSR Int’l Co. v. Teleflex Inc.*, 82 USPQ2D 1385 , 1396 (2007). In this case, the Examiner has failed to provide the required articulated reasoning with some rational underpinning that is required to support a finding of obviousness. Instead, the Examiner relies upon same “mere conclusory statements” that were declared to be insufficient under KSR.

Thus, as Salvo fails to teach both “inventory storage devices” that include “a primary bin coupled to a reserve bin” and bin monitors that monitor “for when a reserve bin is accessed to replenish a primary bin”, and as no proper “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” has been provided, appellants submit independent claim 1 is patentably distinct over the Salvo reference. Furthermore, as independent claim 10 includes similar limitations, it is submitted to be patentably distinct over Salvo for the same reasons. Furthermore, as claims 3-9 and 11-16 depend from, and include all the limitations of their respective independent claims, they are also submitted to be patentably distinct for the same reasons.

II. Claims 17-20 are not unpatentable under 35 U.S.C. § 103 as over Salvo.

A. Rejections under 35 USC §103

In the final office action, claims 17-20 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Salvo for substantially the same reasons as discussed above with respect to claims 1 and 3-16.

B. Analysis

Appellants submit claims 17-20 are patentably distinct over the cited references for substantially the same reasons given above with respect to claims 1, 3-16.

Furthermore, independent claim 17 further clarifies that the sensors in each bin monitor

5 are configured to monitor for when its “corresponding reserve bin is accessed to replenish the primary bin and generates replenishment information indicating the replenishment”.

Appellants submit that this further limitation is not found in the cited reference.

Again, Salvo teaches the use of sensors that provide signals of **amount**, not an indication of **transfer** from a reserve bin to a primary bin, and thus does not generate

10 replenishment information indicating the replenishment. Appellants again note that Salvo describes these sensors with examples such as level sensors, weight indicators, and other devices that permit “determination of the amount 151 of the inventory in a receptacle 104”. See column 4, line 32-46. All of these things are detections of quantity, not indications of transfer or other indication of replenishment.

15 Appellants again submit that it is fundamentally different to attempt to quantify an amount of some item rather than to simply monitor when a reserve bin has been accessed for replenishment of a primary bin.

Furthermore, as with the rejections of claims 1 and 10 discussed above, appellants again submit that the Examiner has failed to provide a proper “articulated reasoning with  
20 some rational underpinning to support the legal conclusion of obviousness”.

Thus, as Salvo fails to teach both “inventory storage devices” that include “a primary bin coupled to a reserve bin” and bin monitors that monitor for when a “corresponding reserve bin is accessed to replenish the primary bin and generates replenishment information indicating the replenishment for when a reserve bin is  
25 accessed to replenish a primary bin”, appellants submit independent claim 17 is patentably distinct over the Salvo reference. Furthermore, as claims 18-20 depend from, and include all the limitations of their respective independent claims, they are also submitted to be patentably distinct for the same reasons.

IX. CONCLUSION

In view of the foregoing, Appellant submits that the rejection of Claims 1, 3-20 is improper and should not be sustained. Therefore, a reversal of the rejections in the Office Action dated April 11, 2008, is respectfully requested.

5

Respectfully submitted,  
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10

Dated: September 25, 2008

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## X. CLAIMS APPENDIX

### Claims on Appeal

- 5     1. An inventory replenishment notification system, the notification system comprising:  
a plurality of bin monitors, each of the plurality of bin monitors corresponding to one  
of a plurality of inventory storage devices, where each of the plurality of  
inventory storage devices includes a primary bin coupled to a reserve bin, and  
wherein each of the plurality of bin monitors includes a sensor and a transmitter, the  
10     sensor monitoring for when a reserve bin is accessed to replenish a primary bin, the  
transmitter sending bin replenishment information to an inventory control system.
- 15     2. (Cancelled)
3. The notification system of claim 1 wherein the transmitter comprises a wireless  
transmitter.
- 20     4. The notification system of claim 1 wherein the bin monitor is powered by a battery.
- 25     5. The notification system of claim 1 wherein the transmitter comprises a wireless  
transmitter that transmits to a relay transmitter.
- 30     6. The notification system of claim 5 wherein the relay transmitter comprises a wireless  
receiver and transmitter that receives the bin replenishment information and transmits  
it to the inventory control system.

7. The notification system of claim 6 wherein the relay transmitter is battery powered.
- 5 8. The notification system of claim 1 wherein the inventory replenishment system automates ordering of new inventory when the bin replenishment information is received.
- 10 9. The notification system of claim 1 wherein each of the bin monitors includes a data field identifying a component type stored in the corresponding primary bin.
10. A method of updating an inventory control system for an inventory system that  
15 includes a plurality of storage devices where each of the plurality of storage devices includes a primary bin coupled to a corresponding reserve bin, the method comprising the steps of:
  - a) monitoring each of the plurality of inventory storage devices to determine when one of the reserve bins has been accessed to replenish its corresponding primary  
20 bin;
  - b) transmitting bin replenishment information to the inventory control system when the reserve bin has been accessed to replenish the corresponding primary bin.
- 25 11. The method of claim 10 wherein the step of monitoring each of the plurality of inventory storage devices comprises providing a plurality of bin monitors, each of the plurality of bin monitors coupled to one of the plurality of inventory storage devices, each of the plurality of bin monitors including a sensor and a transmitter.

12. The method of claim 10 wherein the step of monitoring each of the plurality of inventory storage devices comprises monitoring each of the plurality of inventory storage devices with a plurality of sensors, each of the plurality of sensors corresponding to one of the inventory storage devices.
- 5
13. The method of claim 12 wherein each of the plurality of sensors comprises a battery powered sensor.
14. The method of claim 10 wherein the step of transmitting bin replenishment information to the inventory control system comprises transmitting from a plurality of transmitters, with each of the plurality of transmitters corresponding to one of the plurality of inventory storage devices.
- 10
15. The method of claim 14 wherein each of the plurality of transmitters comprises a wireless transmitter.
- 15
16. The method of claim 10 wherein the step of transmitting bin replenishment information to the inventory control system comprises transmitting through a wireless transmission to a relay transmitter and re-transmitting from the relay transmitter to the inventory control system.
- 20
17. An inventory replenishment notification system, the notification system comprising: a plurality of battery-powered bin monitors, each of the plurality of bin monitors corresponding to and coupled to one of a plurality of two-bin inventory storage devices, each of the plurality of two-bin inventory storage devices including a primary bin and a reserve bin, each of the plurality of bin monitors including a sensor and a transmitter, and wherein each sensor monitors for when its corresponding reserve bin is accessed to replenish the primary bin and generates replenishment information indicating the replenishment and wherein each transmitter sends its corresponding replenishment information to an inventory control system.
- 25
- 30

18. The notification system of claim 17 further comprising a plurality of relay transmitters and wherein each transmitter sends its corresponding replenishment information through one of the plurality of relay transmitters to a base station transmitter.
- 5
19. The notification system of claim 17 wherein each of the plurality of bin monitors can be accessed through the transmitter to determine a status of the bin monitor.
- 10
20. The notification system of claim 17 wherein each of the plurality of bin monitors includes a programmable device, the programmable device controlling the sensor and transmitter.

## XI. EVIDENCE APPENDIX

No evidence pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 has been entered by the Examiner or relied upon by Appellant in the instant appeal beyond that which is  
5 already contained in the as-filed application, as is delineated in the Arguments section of this Brief.

## XII. RELATED PROCEEDINGS APPENDIX

As there are no related appeals and interferences, there are also no decisions rendered by a court or the Board of Patent Appeals and Interferences that are related to the instant appeal.